

Table of Contents

Executive Summary	ES-1
ES 1.1 Purpose and Need.....	ES-2
ES 1.2 The Environmental Review Process for This Proceeding.....	ES-3
ES 1.3 The Scope of This Supplemental Draft Environmental Impact Statement.....	ES-5
ES 2.0 Description of the Proposed Action.....	ES-6
ES 2.1 Alternatives	ES-7
ES 2.2.1 Non-Rail Alternatives	ES-7
ES 2.2.2 Rail Route Alternatives.....	ES-8
ES 3.0 Environmentally Preferable Alternative	ES-10
ES 4.0 Mitigation.....	ES-13
ES 5.0 Submission of Comments and Requests for Additional Information	ES-17
1.0 Introduction and Background	1-1
1.1 Purpose and Need	1-2
1.2 The Environmental Review Process for This Proceeding	1-3
1.3 The Scope of This Supplemental Draft Environmental Impact Statement.....	1-8
1.4 The Organization of This Supplemental Draft Environmental Impact Statement.....	1-9
1.5 Submission of Comments and Requests for Additional Information	1-12
2.0 Proposed Action and Alternatives	2-1
2.1 Proposed Action.....	2-1
2.2 Alternatives	2-2
2.2.1 Non-Rail Alternatives	2-3
2.2.2 Rail Route Alternatives.....	2-3
2.3 The Rail Line Alternatives Studied in the DEIS.....	2-10
2.3.1 The Proposed Route	2-10
2.3.2 Alternative 1.....	2-10
2.3.3 Alternative 2.....	2-11
2.3.4 Alternative 3.....	2-11
2.4 Brief Description of the Eastern Alternatives	2-11
2.4.1 The Eastern Bypass Route	2-12
2.4.2 The MCEAA Medina Dam Alternative	2-12
2.4.3 SGR's Modified Medina Dam Route	2-12
2.5 The Weiblen Modification	2-13
3.0 Analysis Of The Eastern Alternatives	3-1
3.1 Transportation and Traffic Safety	3-2
3.1.1 Affected Environment.....	3-2
3.1.2 Environmental Impacts	3-2

Table of Contents (Continued)

3.2	Public Health and Safety.....	3-8
3.3	Hazardous Materials/Waste Sites and Existing Energy Resources	3-9
	3.3.1 Affected Environment.....	3-9
	3.3.2 Environmental Impacts	3-10
3.4	Worker Health and Safety.....	3-13
3.5	Water Resources	3-14
	3.5.1 Affected Environment.....	3-14
	3.5.2 Environmental Impacts	3-15
3.6	Biological Resources	3-25
	3.6.1 Methodology	3-25
	3.6.2 Affected Environment.....	3-26
	3.6.3 Environmental Impacts	3-31
3.7	Air Quality	3-38
	3.7.1 Methodology	3-38
	3.7.2 Affected Environment.....	3-39
	3.7.3 Environmental Impacts	3-39
	3.7.4 Construction Impacts	3-39
	3.7.5 Impacts from Rail Operations.....	3-39
3.8	Geologic Hazards And Soils.....	3-41
	3.8.1 Affected Environment.....	3-41
	3.8.2 Environmental Impacts	3-41
3.9	Karst Features	3-43
	3.9.1 Affected Environment.....	3-43
	3.9.2 Environmental Impacts	3-43
3.10	Land Use	3-46
	3.10.1 Affected Environment.....	3-46
	3.10.2 Environmental Impacts	3-46
3.11	Environmental Justice.....	3-49
3.12	Noise and Vibration	3-50
3.13	Recreational and Visual Resources.....	3-50
	3.13.1 Affected Environment.....	3-50
	3.13.2 Environmental Impacts	3-50
3.14	Cultural Resources	3-51
3.15	Socioeconomics	3-51
	3.15.1 Affected Environment.....	3-51
	3.15.2 Environmental Impacts	3-52
3.16	Cumulative and Indirect Effects	3-52
4.0	Noise and Vibration	4-1
4.1	Description of the Field Study and Existing Environment	4-4
	4.1.1 Existing Noise Level Summary	4-8
	4.1.2 Proposed Route	4-8
	4.1.3 Alternative 1.....	4-9
	4.1.4 Alternative 2.....	4-9

Table of Contents (Continued)

4.1.5	Alternative 3.....	4-10
4.1.6	The Eastern Bypass Route	4-10
4.1.7	The MCEAA Medina Dam Alternative.....	4-11
4.1.8	SGR's Modified Medina Dam Route	4-11
4.1.9	No-Action Alternative	4-12
4.2	Methodology	4-12
4.2.1	Railroad Noise Prediction/Impact Assessment.....	4-12
4.2.2	Railroad Vibration Prediction/Impact Assessment.....	4-14
4.2.3	Heavy Truck Noise/Vibration Prediction/Impact Assessment	4-14
4.2.4	Construction Noise/Vibration Prediction/Impact Assessment.....	4-15
4.3	Potential Noise Impacts	4-16
4.3.1	Construction Activities	4-17
4.3.1.1	Conventional Construction	4-17
4.3.1.2	Specialized Construction	4-19
4.3.2	Loading Track and Side Track.....	4-20
4.3.3	Rail Operations	4-23
4.3.3.1	Indirect and Cumulative Noise Impacts.....	4-24
4.4	Potential Vibration Impacts	4-25
4.5	Indirect and Cumulative Vibration Impacts.....	4-26
4.6	Preliminary Conclusions and Mitigation	4-26
4.7	Comparison of DEIS and SDEIS Noise and Vibration Analysis	4-28
5.0	Cultural Resources.....	5-1
5.1	Rural Historic Landscape Study	5-5
5.2	Reconnaissance Survey of Eastern Alternatives.....	5-12
5.3	Overall Comparison of Cultural Resource Impacts for All Alternatives.....	5-21
5.4	Mitigation Measures for Cultural Resource Impacts	5-45
6.0	Recommendations and Conclusions.....	6-1
6.1	SEA's Recommendations for Mitigation.....	6-1
6.1.1	Voluntary Mitigation Measures Included in the DEIS	6-2
6.1.2	SEA's Recommended Mitigation in the DEIS	6-4
6.1.3	SEA's New or Modified Mitigation Recommended in the SDEIS	6-11
6.2	Comparison of Alternatives	6-14
6.2.1	Transportation and Traffic Safety	6-14
6.2.2	Public Health and Safety.....	6-18
6.2.3	Hazardous Materials/Waste Sites and Existing Energy Resources.....	6-19
6.2.4	Health and Worker Safety.....	6-20
6.2.5	Water Resources	6-22
6.2.6	Biological Resources	6-29
6.2.7	Air Quality	6-31
6.2.8	Geological Hazards and Soils	6-32

Table of Contents (Continued)

6.2.9	Karst Features	6-33
6.2.10	Land Use	6-33
6.2.11	Environmental Justice.....	6-36
6.2.12	Noise	6-37
6.2.13	Vibration	6-37
6.2.14	Recreation and Visual Resources.....	6-37
6.2.15	Cultural Resources	6-37
6.2.16	Socioeconomics	6-40
6.3	Environmentally Preferable Alternative(s)	6-40
	List of Preparers.....	LP-1
	List of SDEIS Recipients	LR-1
	Index	I-1
	References.....	Ref-1

List of Appendices

Appendix A Chapters 3 and 4 of the DEIS

Appendix B Relevant Correspondence

- B-1 Information Submitted by SGR/Requested by SEA from SGR
- B-2 Correspondence Relevant to the SDEIS

Appendix C Technical Information/Studies

- C-1 Air Quality Worksheets
- C-2 Cut and Fill Report
- C-3 Noise and Vibration Report

Appendix D Miscellaneous

Appendix E Notice of Intent to Prepare the SDEIS and Related Correspondence

Appendix F Cultural Resources

- F-1 Technical Memorandum of the Eastern Alternatives
- F-2 Rural Historic Landscape Study

List of Figures

Figure 2-1	Southwest Gulf Railroad Location of Rail Alternatives	2-5
Figure 2-2	Southwest Gulf Railroad Weiblen Modification	2-15
Figure 3-1	Southwest Gulf Railroad Pipeline Line Crossings.....	3-3
Figure 3-2	Southwest Gulf Railroad Transmission Line Crossings	3-11
Figure 3-3	Southwest Gulf Railroad Edwards Aquifer Zones.....	3-17
Figure 3-4	Southwest Gulf Railroad Floodplain Regions Within Project Area	3-20
Figure 3-5	Southwest Gulf Railroad Routes, Creek Crossings, and Watersheds	3-21
Figure 3-6	Southwest Gulf Railroad Potential Wetlands Crossed By Eastern Alternatives	3-29
Figure 3-7	Biological Resources Survey Southwest Gulf Railroad	3-36
Figure 3-8	Southwest Gulf Railroad Geologic and Karst Units	3-45
Figure 4-1	Alternative Rail Routes and Noise Measurement Locations	4-5
Figure 5-1	Resource Numbers & Survey Area Boundaries Quihi Vicinity, Medina County, Texas.....	5-6
Figure 5-2	Resource Numbers & Survey Area Boundaries Quihi Vicinity, Medina County, Texas.....	5-7

List of Tables

Table 2-1	Rail Line Alternative Routings	2-13
Table 3.5-1	Watershed Areas Intercepted by The Eastern Alternatives	3-14
Table 3.5-2	Number of Crossings in Each Watershed by Stream Order	3-15
Table 3.6-1	Special-Status Plant Species	3-28
Table 3.6-2	Special-Status Wildlife Species	3-30
Table 3.6-3	Sensitive Biological Resources Crossed by the Eastern Alternatives.....	3-33
Table 3.7.5-1	Mobile Source and Rail Loading Emissions for The Eastern Alternatives.....	3-40
Table 3.8-1	NRCS Farmland Impact Conversion Rating.....	3-42
Table 4-1	Existing Community Noise Levels (L_{dn})	4-8
Table 4-2	Prescriptive Federal Railroad Administration Construction Noise Impact Guidelines.....	4-18
Table 4-3	Calculated Sound Levels from Pile Driving	4-20
Table 4-4	3 dBA L_{dn} Increase	4-23
Table 4-5	Increase to 65 dBA L_{dn} or greater and 3 dBA L_{dn} Increase.....	4-23
Table 5.1-1	Historic Dwelling Types by Date of Construction	5-9
Table 5.2-1	Historic Resource Areas within 1000 Feet of the Eastern Alternatives.....	5-14
Table 5.2-2	Summary of Historic Resource Areas Associated with Each APE	5-16
Table 5.2-3	Summary of Cultural Resources Issues for the Eastern Alternatives	5-21
Table 5.2-4	Cultural Resource Sensitivity Ranking of the Eastern Alternatives	5-21
Table 5.3-1	Quantitative Comparison of Potential Historic District Impacts	5-23
Table 5.3-2	Resource Areas within APE of Proposed Route.....	5-26
Table 5.3-3	Resource Areas within APE of Alternative 1	5-30
Table 5.3-4	Resource Areas within APE of Alternative 2	5-32
Table 5.3-5	Resource Areas within APE of Alternative 3	5-34
Table 5.3-6	Resource Areas within APE of Eastern Bypass Route	5-36
Table 5.3-7	Resource Areas within APE of MCEAA Medina Dam Alternative.....	5-38
Table 5.3-8	Resource Areas within APE of SGR Modified Medina Dam Route	5-40
Table 5.3-9	Summary of Cultural Resources Impacts for All Alternatives	5-44
Table 6.2.1-1	Transportation and Traffic Safety	6-15
Table 6.2.2-1	Public Health and Safety.....	6-18
Table 6.2.3-1	Hazardous Materials/Energy Resources	6-19
Table 6.2.4-1	Worker Health and Safety.....	6-21
Table 6.2.5-1	Surface Water Resources	6-24
Table 6.2.5-2	Groundwater Resources.....	6-27
Table 6.2.5-3	Wetland Resources.....	6-28

List of Tables (Continued)

Table 6.2.6-1 Biological Resources	6-30
Table 6.2.7-1 Air Quality	6-32
Table 6.2.9-1 Karst Features	6-33
Table 6.2.10-1 Land Use	6-34
Table 6.2.15-1 Cultural Resources	6-39

List of Acronyms

ACHP	Advisory Council on Historic Preservation
ADT	average daily traffic
ANSI	American National Standards Institute
APEs	Area of Potential Effects
AREMA	American Railway Engineering and Maintenance of Way
ATF	Alcohol, Tobacco, and Fire Arms
BFZ	Balcones Fault Zone
BLS	Bureau of Labor Statistics
BMPs	Best Management Practices
Board	Surface Transportation Board
CAA	Clean Air Act
Caltrans	California Department of Transportation
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CEQ	Council on Environmental Quality
COC	communities of concern
Corps	Army Corps of Engineers
CWA	Clean Water Act
DB	decibels
dBA	A-weighted sound level
DEIS	Draft Environmental Impact Statement
DOE	Department of Energy
Draft Scope	Draft Scope of Study for the EIS

List of Acronyms (Continued)

EA	Environmental Assessment
EARZ	Edwards Aquifer Recharge Zone
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FPPA	Farmland Protection Policy Act.
FRA	Federal Railroad Administration
FWS	Fish and Wildlife Service
GH&SA	Galveston, Harrisburg, and San Antonio
Hz	Hertz
ICC	Interstate Commerce Commission
I&GN	International and Great Northern
km	kilometer
Kv	Kilo volt
Koch	Koch Midstream Services Co., LLC
Ldn	weighted average sound level
Leq	equivalent sound level
MCEAA	Medina County Environmental Action Association
MHWL	mean high water line
MSHA	Mine Safety and Health Administration
MSL	mean sea level
Mosbacher	Mosbacher Operations Ltd.
NAAQS	National Ambient Air Quality Standards
NASIS	National Soil Information System
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOAA	National Oceanic and Atmospheric Administration

List of Acronyms (Continued)

NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
OHWM	ordinary high water mark
PCRA	Preliminary Cultural Resources Assessment
PUSAh	Palustrine, Unconsolidated Shore, Temporarily Flooded, Diked/Impounded
PUSCh	Palustrine, Unconsolidated Shore, Temporarily Flooded, Diked/Impounded
PUBHh	Palustrine, Unconsolidated Bottom, Permanently Flooded, Diked/Impounded
PUBFh	Palustrine, Unconsolidated Bottom, Semi-temporarily Flooded, Diked/Impounded
PUBH	Palustrine, Unconsolidated Bottom, Permanently Flooded
RMS	root mean square
RRC	Railroad Commission of Texas
SEA	Section of Environmental Analysis
SDEIS	Supplemental Draft Environmental Impact Statement
SGR	Southwest Gulf Railroad Company
SHPO	State Historic Preservation Officer
SPCC	spill prevention, containment, and countermeasures
STPPP	Stormwater Pollution Prevention Plan
TCEQ	Texas Commission on Environmental Quality
Texas FS	Texas FS, L.P.
TNDD	Texas Natural Diversity Data Base
TPWD	Texas Parks and Wildlife Department
TWDB	Texas Water Development Board
TXDOT	Texas Department of Transportation
UP	Union Pacific Railroad Company
URS	URS Corporation
USDOT	U.S. Department of Transportation

List of Acronyms (Continued)

USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VCM	Vulcan Construction Materials, LP
WAM	Water Availability Model
WIID	Water Information Integration and Dissemination System
WPAP	Water Pollution Abatement Plan